

THE RISING SEA

A Novel from the NUMA® Files

CLIVE CUSSLER
AND GRAHAM BROWN

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PUTNAM

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This is a work of fiction. Names, characters, places, and incidents
either are the product of the authors' imaginations or are used fictitiously,
and any resemblance to actual persons, living or dead, businesses,
companies, events, or locales is entirely coincidental.

CAST OF CHARACTERS

JAPAN (HISTORICAL)

Yoshiro Shimezu — Samurai warrior, engaged in rebellion against the Shogun.

Kasimoto — Shogun, feudal lord controlling much of central Japan.

Goro Masamune — Japan's greatest swordsmith, crafted the Honjo Masamune, considered the finest Japanese sword ever created.

Sengo Muramasa — Alleged to be Masamune's apprentice, second-greatest swordsmith of historical era, crafted the Crimson Blade.

CHINA

Wen Li — Powerful, shadowy figure in the Chinese government and Communist Party, shrewd strategist also known as the Lao-shi or *learned Master*.

Walter Han — Half Japanese, half Chinese, wealthy industrialist, sometimes proxy for Wen Li.

Mr. Gao — Han's chief engineer, robotics and computer expert.

General Zhang — Important member of the Chinese secret service, head of the Ministry for State Security.

NATIONAL UNDERWATER AND MARINE AGENCY

Rudi Gunn — Assistant Director of NUMA, graduate of the Naval Academy.

James Sandecker — Former head of NUMA, now the Vice President of the United States.

Kurt Austin — Head of NUMA's Special Projects division, world-class diver and salvage expert, once worked for the CIA.

Joe Zavala — Kurt's right-hand man, expert in design and construction of engines and vehicles, also an accomplished helicopter pilot and amateur boxer.

Paul Trout — NUMA's lead geologist, also tallest member of the Special Projects team at six foot eight, married to Gamay.

Gamay Trout — Marine biologist, married to Paul, Gamay is a fitness aficionado, an accomplished diver.

Priya Kashmir — Multidisciplinary expert, was supposed to join a NUMA field team before a car accident left her unable to walk, assigned to the Rising Seas Project.

Robert Henley — NUMA geologist, assigned to the Rising Seas Project in Paul's absence.

JAPAN (MODERN-DAY)

Kenzo Fujihara — Reclusive scientist, and former geologist, now leader of an antitechnologist sect, developed method for detecting Z-waves.

Akiko — Sergeant at arms for Kenzo, formerly connected to the underworld, acts as his protector.

Ogata — Member of Kenzo's antitechnology sect.

Superintendent Nagano — High-ranking member of the Japanese Federal Police, assigned to the Fujihara case, expert on the Yakuza and organized crime.

Ushi-Oni — Former Yakuza assassin, now a rouge force, also known as the Demon, distant relative and sometime associate of Walter Han.

Hideki Kashimora — Yakuza underboss in charge of the Sento, an illegal gambling establishment and fight club on the outskirts of Tokyo.

BLOOD AND STEEL

CENTRAL JAPAN

WINTER 1573

THE THUNDER OF charging horses gave way to the clang of swords as two armies met on a field in the highlands of Japan.

From the saddle of his horse, Yoshiro Shimezu fought with a combination of power and grace. He whirled and slashed, maneuvering his steed with precision, all without *hakusha*, or spurs. The samurai did not use them.

Clad in brightly painted armor, Yoshiro sported wide shoulder boards, heavy gauntlets and a helmet adorned with stag horns. He wielded a gleaming *katana* that caught every bit of the light as it cut through the air.

With a flick of the wrist, he disarmed his nearest adversary. A backhanded cut followed, snapping another opponent's sword in two. As that soldier fled, a third foe lunged at Yoshiro with a pike. The tip struck his ribs, but his scaled armor that lay in pleats prevented mortal damage. Yoshiro wheeled around and killed the man with a downward hack.

Free for a second, he turned his horse in a tight pirouette. The

horse, dressed in armor to match Yoshiro's, reared up, kicking with its front legs and then leaping forward.

Its iron-clad hooves smashed a pair of attackers in the face, sending them bloodied and battered to the ground. It came down on a third man, crushing him, but enemy soldiers were now massing on all sides.

Yoshiro turned one way and back again. He'd taken the field against the Shogun, who arrived with overwhelming numbers. The battle had gone predictably and Yoshiro was facing the end.

Determined to take as many foes with him as possible, Yoshiro charged the closest group, but they pulled back in a defensive formation, raising shields and long pikes. He turned and galloped toward another formation of troops, but they, too, held their ground, cowering behind a forest of spears.

Perhaps they meant to capture him. Perhaps the Shogun would demand he commit seppuku in front of the court. Such an end Yoshiro would not accept.

He urged his horse one way and then the other. But with each move, the foot soldiers drew back. Yoshiro pulled up. He had no wish to see his steed uselessly killed. It was a beautiful animal and his only advantage.

"Fight me!" he demanded, turning from quarter to quarter. "Fight me if you have any honor!"

A primal grunt caught his attention. A spear was hurled his way. With superb reflexes, Yoshiro parried the incoming missile, slicing through the wooden shaft with his sword, both deflecting and dividing it. The weapon fell harmlessly in two pieces.

"Do not attack!" a voice shouted from behind the mass of troops. "His head belongs to me."

The soldiers straightened at the sound of the command and one section of the circle opened, allowing the rider to enter.

Yoshiro recognized the silk draping of the horse, the golden breast-plates of the armor and the winged helmet. The Shogun had come to fight at last.

“Kasimoto!” Yoshiro called out. “I did not think you’d have the courage to cross swords with me in person.”

“I would not allow any other to vanquish a traitor,” Kasimoto said, drawing a sword of his own, a *katana* like Yoshiro’s, though it was a darker weapon with a thicker blade. “You swore allegiance to me as feudal lord. You are in rebellion.”

“And you swore to protect the people, not murder them and steal their land.”

“My authority is absolute,” the Shogun bellowed. “Over them and over you. I cannot steal what is already mine. But if you beg for it, I will be merciful.”

The Shogun whistled and a small group of prisoners were brought out. Children. Two boys and two girls. They were forced to kneel while servants of the Shogun stood behind them with daggers.

“I have more than a thousand captives,” the Shogun said. “And with your rabble defeated, nothing stands between me and the village. If you surrender now and take your own life, I will kill only half the prisoners and leave the village standing. But if you fight me, I will slaughter them to the last man, woman or child and I’ll burn the village to ash.”

Yoshiro had known it would come to this. But he also knew that many in the Shogun’s ranks had grown weary of the brutality, expecting it to land on them sooner or later. That gave him one flicker of hope. If he could kill the Shogun here and now, wiser minds might prevail. At long last, there might be peace.

Yoshiro considered his chances. The Shogun was a cunning warrior, strong and possessing great expertise, but he and his horse were

unmarked by blood, sweat or soil. It had been a long time since the Shogun fought for his life.

“What answer do you give?”

Yoshiro kicked his horse in the side and charged, raising his gleaming sword above his head.

The Shogun reacted slowly but deflected the attack at the last moment and urged his animal forward, passing Yoshiro on the left.

The warriors swapped sides, turned and charged once again. This time, the armored animals collided at the center of the circle. Both horses buckled from the impact. Their riders were thrown to the ground.

Yoshiro sprang up first, attacking with a deadly thrust.

Kasimoto parried the assault and jumped to the side, but Yoshiro spun and slashed downward.

With each clash of the swords, sparks flew from the blades. The Shogun regained his form and an upper cut from him tore Yoshiro's helmet off, opening a gash on his cheek. A return strike from Yoshiro took off one of Kasimoto's shoulder boards.

Angered and in pain, the Shogun came on furiously, slashing, feinting and hacking, using a deadly combination.

Yoshiro reeled from the attack, nearly losing his balance. The Shogun went for his throat with a cut that should have separated head from body, but with a desperate flick of the hands, Yoshiro deflected the strike with the flat side of his sword.

The impact should have broken his weapon into useless pieces, but Yoshiro's blade took the blow, flexed and deflected the strike away from him.

In a counterattack, Yoshiro unleashed a powerful crosscut that found Kasimoto's midsection. The edge of the blade was so sharp and

the strike so fierce that it gashed through the painted steel plate and the hardened leather, drawing blood from the Shogun's ribs.

A gasp came from the soldiers gathered around. Kasimoto stumbled back, clutching his side. He gazed at Yoshiro in astonishment. "Your blade remains in one piece while my armor is carved like wet cloth. There can only be one reason for that. The rumors are true, you hold the weapon of the great swordmaker. The Masamune."

Yoshiro held the gleaming sword proudly. "This weapon was handed down to me from my father and from his father before him. It's the finest blade of all the Master's works. And it shall bring an end to your vil life."

The Shogun pulled off his helmet in order to breathe and see better. "A powerful weapon indeed," he said. "One I shall treasure when I pull it from your dead hand—but my sword is the greater of the two. It is the blade that thirsts for blood."

Yoshiro recognized the *katana* in the Shogun's hands. It was the work of Japan's other great swordsmith: Muramasa, protégé to the famed Master.

It was said the two swordmakers had lived in a state of bitter contention and that the Muramasa had infused his weapons with the jealousy, hatred and darkness he felt for the one who had taught him. They had become weapons of conquest, destruction and death, where the works of Masamune were used to uphold the righteous and to bring peace.

Legends to be sure, but there was always some truth to them.

"Trust in that dark sword and it will bring you to ruin," Yoshiro warned.

"Not until it brings me your head."

The two warriors circled each other, wounded and catching their

breath, each of them preparing for the final clash. Yoshiro was limping and Kasimoto bleeding. One would soon fall.

Yoshiro would have to act decisively. If he missed his mark, Kasimoto would kill him. If he struck a wounding blow, the Shogun would retreat out of fear and order his men to swarm over Yoshiro. If that were to occur, even the magnificent weapon he wielded would be unable to save him.

He needed a lightning strike. One that would kill the Shogun instantly.

Limping more noticeably, Yoshiro came to a halt. He assumed the classic samurai stance, one leg back, one leg forward, both hands on the sword, which was kept near the back hip.

"You look tired," the Shogun said.

"Test me."

The Shogun responded with a defensive stance of his own. He would not take the bait.

Yoshiro had to act. He lunged forward with surprising speed, the flaps of his layered armor spreading like wings as he charged.

In close, he thrust the *katana* at the Shogun's neck, but Kasimoto blocked the attack with an armored gauntlet and brought his own blade downward.

It sliced into Yoshiro's arm. The pain was excruciating but Yoshiro ignored it. He spun in a full circle and launched into a new assault.

The Shogun staggered backward under the weight of the attack. He was pushed to the right and then back to the left and then over to the right again. His legs shook. His breath came in gasps.

Overpowered by the attack, he tumbled, by chance landing beside one of the young prisoners. As Yoshiro began a lethal stroke, the Shogun pulled the child in front of him.

Yoshiro was already in the process of striking, but the sword caught

neither the Shogun's head nor the child's. It continued down, glancing off the Shogun's ankle and plunging its tip into the soft trampled earth.

Yoshiro pulled, but the blade stuck in the ground for just a second. That was long enough for Kasimoto. He threw the child aside and swung for Yoshiro with both hands on the hilt of his weapon.

His blade sliced through Yoshiro's neck and took his life instantly. The samurai's headless body fell in a heap. But the dying was not over.

Kasimoto's forward lunge had brought him up from a crouch. As he stepped down, his ankle buckled where it had been smashed by Yoshiro's final blow. He stumbled forward, reaching out toward the ground to break his fall, and he turned the point of his own sword back toward himself.

It pierced his chest where Yoshiro had cut the armor away, puncturing his heart, skewering him and holding him off the ground.

Kasimoto's mouth opened as if to scream, but no sound came forth. He lay there, propped up by his own weapon, his blood running down the length of its curved blade.

The battle ended this way, as did the war.

The Shogun's men were tired, weary and now leaderless. They were many weeks from home. Instead of pressing on and burning the village, they gathered up their dead and left, taking with them both the gleaming sword of the Masamune and the blood-soaked weapon forged by Muramasa the apprentice.

Tales of the battle would grow from that day forward and soon became embellished until the claims were beyond imagination.

Yoshiro's *katana* would eventually be known as the Honjo Masamune, the ultimate creation of Japan's greatest swordsmith. It was said to be unbreakable and yet able to bend nearly in half as it swung and whipped through the air. One legend insisted it shined from

within, casting enough light to blind its opponents. Others said the blade was so finely honed that when Yoshiro held it before him, it split the light into a rainbow and rendered him invisible.

The Shogun's dark sword would become only slightly less famous. It was a charcoal color to begin with and was said to have grown darker and reddish in tint after soaking in Kasimoto's blood. It came to be called the Crimson Blade. Over the centuries, its own legend would grow. Many who took possession of it came to great wealth and power. And most of them came to tragic ends as well.

Both weapons would be passed down from samurai to samurai, from feudal lord to feudal lord, becoming national treasures of the Japanese people. They would be held by the powerful families, revered by the public and prized, until they vanished without a trace in the chaotic days at the end of World War II.

THE SERPENT'S JAW

EAST CHINA SEA, NINETY MILES FROM SHANGHAI
TWELVE MONTHS BEFORE THE PRESENT DAY

THE GRAY SUBMERSIBLE traveled slowly across an aquatic paradise. Sunlight filtered down from above. Kelp beds waved in the current. Fish of every conceivable size and shape darted about. Off in the distance, an ominous shadow loomed in the blue infinity; a huge but harmless whale shark, its mouth gaping wide as it strained the water for tiny clouds of plankton.

From the command chair in the nose of the submersible, Dr. Chen marveled at the stunning array of life around him.

“We’re approaching the Serpent’s Jaw,” a female voice said beside him.

Chen nodded at the information and kept his eyes on the world outside. This would be his last view of natural sunlight for a month and he wanted to savor it.

The submarine continued across the kelp bed until it gave way to a band of coral and then a V-shaped canyon. At first, the canyon was no more than a fissure, but it widened as it ran off into the distance, and from above resembled an open mouth.

The Serpent's Jaw.

As they traveled out over the canyon, the seafloor dropped precipitously.

"Take us down," Chen ordered.

The submersible's pilot manipulated the controls with utter precision and the submarine, filled mostly with supplies, nosed down and descended into the steep-walled canyon.

Five hundred feet down, they lost the light. Nine hundred feet later, they found it again. Only, this time, it was artificial in nature and coming from a habitat anchored to a sidewall of the canyon.

Chen could make out the small living space and the stack of additional modules lined up beneath it. They went all the way to the canyon floor, where a tangle of pipes and tubes could be seen snaking into the ground.

"I trust you can handle the docking," Chen said.

"Of course. Stand by."

For the first time, Chen turned to study the pilot. She had wide, expressive eyes, smooth skin and plum-colored lips. It was a pretty face, but her designers hadn't given her any hair and in places the mechanics of her operating machinery were on full display.

He could make out bones of titanium and polished gearing where the joints of each arm connected to her torso; tiny hydraulic pumps and servos along with bundles of wires that ran like arteries until they vanished beneath white plastic panels sculpted to look like human curves.

The body panels covered her chest, midsection and thighs. Similar panels covered her arms but gave away once again at her wrists. Her fingers were pure machinery; powerful and precise, made of stainless steel, with rubber tips to facilitate grasping.

As an engineer, Chen admired the mechanics of her form. And as a

man he appreciated the attempt at human beauty. That said, he wondered why they'd given her such a pretty face, soft voice and attractive outer form without finishing the job. They'd left her stuck halfway between human and machine.

A pity, he thought.

He turned back to the view port as the submersible eased up against the docking collar, bumped it softly and locked on. With the docking confirmed and the seal in place, Chen wasted no time. He stood, grabbed his pack and unlocked the submersible's inner door. The pilot neither looked at him nor reacted. She just sat, not moving and staring straight ahead.

No, he thought, *not half human. Not quite.*

Entering the habitat, Chen passed other slow-moving machines traveling on caterpillar tracks. *Distant cousins of the submersible's pilot*, he thought. *Very distant.*

These machines were more like self-driving pallets crossbred with a small forklift. They would unload the supplies and equipment from the submersible and take them to the appropriate storerooms, all without a command from anyone at the station.

At the same time, other automatons would load the sub with the ore extracted from a deep fissure beneath the seabed.

Such a plain word for it. *Ore*. In truth, the material was unlike anything that had ever been mined before, an alloy trickling up from deep within the Earth, stronger than titanium, a third of its weight and imbued with other unique properties not found in any existing alloy or polymer.

He and the others—and there were very few others who knew of it—called the alloy Golden Adamant, or GA for short. The submerged mining facility had been constructed in secret to excavate it.

To keep that secret, and to maximize the station's efficiency, it had

been built to be almost fully automated. Only one human was stationed there at a time, directing the efforts of two hundred automated workers.

The machines came in all shapes and sizes. A few had humanoid form, like the submarine pilot; others were referred to as mermaids, since they combined human-like grasping arms and a spherical camera-filled “head” with a propulsion pack where a human swimmer’s legs would be.

Others looked like the classic ROVs of aquatic exploration, and still others resembled heavy machinery at a construction site. Most of the later models worked on the seafloor or within the deep borehole itself. All of them operating on batteries recharged by a compact nuclear reactor that had been repurposed from a Chinese attack submarine and secured in the lowest module.

On his first visit, Chen had been in absolute awe of the station. He’d spent time in every nook and cranny. His second posting had been exciting as well. But now he rarely left the upper level, the only section of the habitat truly designed for humans.

He arrived at “the office,” his home for the next thirty days. Inside, he found the man he was due to replace. Commander Hon Yi of the People’s Liberation Navy.

Hon Yi was packed and waiting, his duffel bag resting beside the door.

“I see you’re ready to go.”

“You’ll feel the same after another month down here with no one but machines for companions.”

“I find some of them interesting,” Chen said. “Our submersible pilot in particular. And some of the dive robots have expressive features. I understand they’re working on a full human replica to keep us company.”

Hon Yi laughed. "If they make her too real, you'll be fighting over who should make dinner."

Chen laughed with Hon Yi, but he wouldn't have minded a robotic companion that looked human, providing they could eliminate the eerie dead stare that happened when the machines settled into an inactive mode.

"What's our status?" he asked, getting down to business.

"I'm afraid the recovery is faltering," Hon Yi said. "Worse than last month. Which, as you know, was worse than the month before."

"And the month before that," Chen added with a grimace. "It seems the yield is falling off a cliff."

Hon Yi nodded. "I know how valuable this ore is. I know what you and the engineers say it can do, but if we don't find more of it or a more efficient way to extract it, someone in the Ministry is going to be brought up on charges for spending all this money."

Chen doubted that. The Ministry had endless money. And in this case they were partnering with the billionaire who'd developed the robots. He doubted either group would miss their pennies, but when he looked at the numbers on the computer console, he was surprised by how little of the Golden Adamant had been processed. "A hundred kilos? Is that all?"

"The vein is played out," Hon Yi said. "But don't think I'm going to tell our bosses that."

The intercom crackled. A human-sounding voice, male this time, spoke. "TL-1 reporting. Deep-basin injectors ready. Harmonic resonators charged. Impact range, Z minus one hundred and thirty."

Far below the station, the robots were getting ready for the next phase of the mining operation. By the sound of it, they were targeting the deepest section of the fissure.

Chen looked at Hon Yi. "You've gone to the depths."

“Ground-penetrating sonar indicates the only remaining vein of ore runs straight down. If the operation is to continue, we must excavate the deep vein. The only other option is to shut down.”

Chen wasn’t sure about that. There were known dangers in mining too deeply.

“Shall I give the order?” Hon Yi asked. “Or do you prefer the honors?”

Chen held up his hands. “By all means, make it your order.”

Hon Yi pressed the intercom button and spoke the order in the specific manner in which they’d been trained to command the robots. “Proceed as scheduled. Overriding objective: maximize ore recovery and speed. Continue operation until ore recovery falls below one ounce per ton unless otherwise directed.”

“Confirmed,” the TL-1 replied.

A distant humming sound filled the station seconds later. It was a side effect of the mining. It was so constant when the operation was running that Chen knew he’d forget about it in a day or two, only to be reminded when the machines took a break to repair themselves, reevaluate the process or switch batteries.

“The station is yours,” Hon Yi said. He handed over the command keys and a tablet computer.

“Enjoy your ride to the surface,” Chen said. “It was sunny when I came down.”

Hon Yi grinned at the thought of sun, grabbed his duffel bag and hastened out the door. “See you in a month.”

Chen was left alone. He immediately looked around for something to do. Of course there were plenty of reports to read and paperwork to shuffle—they’d yet to build a robot to handle those chores—but he had plenty of time for all that and no wish to rush into the monotony.

He put the tablet computer down on the desk and walked over to

the fish tank. Several types of goldfish lived in the tank: fantails, bubble eyes and one lion head. Hon Yi had suggested they get a beta and put it in a separate tank on the shelf, since betas couldn't live with other fish. But Chen had talked him out of it; there was enough solitude going on down there as it was.

Looking through the glass, Chen noticed that the fish were darting about the tank. They always became agitated when the excavation first resumed. To calm them, Chen picked up the shaker of food and sprinkled some in. As soon as the flakes hit the water, the fish raced to the surface to eat it.

Chen couldn't help but smile at the irony. A tank within a tank. One kept fish alive in an air-dominated environment and the other kept him and Hon Yi alive in the depths of the sea. Both groups with nothing to do but stare out the window and eat. If the pattern held, he'd be ten pounds heavier when he returned to the surface.

Chen sprinkled in more food, but the fish stopped eating and went still without warning. All of them at the very same instant. Chen had never seen that before.

They drifted downward. Their fins weren't moving, their gills were flat. It was as if they'd been stunned or drugged.

He tapped on the glass. Instantly, the fish began darting around, racing from one side of the tank to the other. They seemed panicked. Several of them slammed into the glass walls like bees trying to get through a window. One went to the bottom of the tank and began burrowing in the gravel.

As Chen stared, ripples formed on the top of the tank and the gravel at the bottom began to jump and dance. The walls of the habitat began to shake as well.

He stepped back. The vibration of the mining operation was growing louder. Louder than it should have been. Louder than he'd ever

heard it before. Books and pieces of decorative coral began to vibrate on the shelf. The fish tank fell and smashed down beside him.

He pressed the intercom button. "TL-1," he said, calling out to the command robot. "Cease mining operations immediately."

TL-1 responded calmly and immediately. "Authorization, please."

"This is Dr. Chen."

"Command code not recognized," the robot replied. "Authorization required."

Chen realized instantly that robots were listening for Hon Yi's voice. He had yet to log on the computer and replace Hon Yi's authorization with his own.

He reached for the tablet computer and tapped the screen furiously. As he typed, a deep rumbling sound became audible, like boulders grinding against one another. The pounding grew louder and closer with terrible speed until something hit the station.

Chen was thrown to the floor and then the wall. Everything tumbled end over end. A jet of water burst through a torn seam in the metal, slamming him with more force than a fire hose. It broke bones and gouged flesh and crushed him against the wall as easily as a speeding truck would have.

In seconds, the module filled with water, but Chen was dead long before he would have drowned.

Outside the habitat, the submersible had just detached from the station when the shaking began.

Hon Yi heard the rumble through the walls of the sub. He saw the destruction coming from above as huge slabs of rock fell through the glare of the work lights higher up. At the same time, clouds of sediment were exploding upward from below.

"Go," Hon Yi said to the pilot. "Get us out of here."

The pilot reacted with mechanical efficiency but no true urgency.

The avalanche hit the top level of the station and sheared it from the rest of the structure, the impact sent debris raining down on the submarine.

Instead of waiting for the robot to sense the mortal danger it could never perceive, Hon Yi reached over and grabbed the controls. He tried to push the throttle to full, but the robot's grip was unbreakable.

"Relinquish command."

The robot let go of the controls and sat back impassively. Hon Yi pushed the throttle to full and turned the valve to blow the ballast tanks. The submersible accelerated and began to rise.

"Come on," he urged. "Go!"

The sub pushed forward. A wave of pebbles hit the outer hull, sounding like hail. A fist-sized rock slammed against the canopy, chipping it. Larger stones hit the roof and dented the propeller housing.

Hon Yi attempted to guide the sub away from danger, but with the propeller housing bent, he couldn't get the craft to move in a straight line. It turned, even as it accelerated, and wandered right back into the danger zone.

"No!" he shouted.

A second wave of tumbling debris hit the sub square on. The canopy shattered. A boulder crushed the hull like a tin can and the avalanche of debris drove the submarine downward, slamming it to the bottom of the Serpent's Jaw.